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A Massive Hemangioma of the Cheek

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ABSTRACT:
Vascular lesions of the face are not a very common entity. Hemangiomas are benign tumors of vascular origin, withan incidence of 2%–3% in the neonates and 10% in children after 1 year. The incidence of cavernous hemangioma in general population is roughly about 0.5%.The incidence of intramuscular hemangiomas is rare and their occurrence in head and neck region is only 6 %.Most true hemangiomas involutewith time, but a certain small percentage do not. Herein, we report a rare case of combined cavernous and intramuscular hemangioma of left cheek with incomplete involution along with the presence of phleboliths.

Key words: hemangioma, phleboliths, cheek

INTRODUCTION

Haemangiomas are benign lesions of blood vessels that faithfully create well formed vascular channels. Usually present from birth, they may represent congenital hamartomas or benign neoplasms arising in a congenital defect [1]. In the newborn, they may be so small as to be invisible. These lesions are considered by many researchers to be hamartomas that grow as the body develops [2]. However, these lesions may even arise spontaneously as true neoplasms in children or adults [3]. As the body grows, these masses become highly visible becoming several centimetres in diameter.

CASE REPORT

A 14-yr old boy reported to the Department of Oral Medicine & Radiology, with a chief complaint of swelling of left side of cheek. It was present since birth with a rapid increase in its size since last two months. Patient had no history of pain, fever, pus discharge or sinus. Medical history, family history, personal history was insignificant. On extraoral examination, facial asymmetry due to a swelling involving the left cheek, upper and lower lip was noted. The swelling extended anteriorly from middle one third of upper and lower lip upto a line passing through the outer canthus of eye and superiorly from infraorbital margin to inferior border of mandible. It measured about 4x4 cm in size. The skin over the swelling was normal. On palpation, it was soft, fluctuant, non tender, emptiable and pulsatile (Figure 1).

Intraorally,a bluish red well-defined mass extending from corner of mouth retromolar pad, and superio-inferiorly from upper buccal vestibule to lower buccal vestibule was seen intraorally. On palpation the mass was soft, fluctuant, and emptiable.A bruit was also heard (Figure 2). Based on clinical examination, a provisional diagnosis of vascular lesion was made.Radiological examination consisted of an Orthopantomograph, Lateral Cephalogram, Ultrasonography and Magnetic resonance imaging.Orthopantomograph showed small sausage shaped radiopacitieswith a small radiolucent dot in the centre in the left ramus region suggestive of phleboliths[Figure 3]. The presence of phleboliths in the lower lip region was seen on a Lateral Cephalogram [Figure 4]. Ultrasonography showed presence of multiple round phleboliths involving the masseter muscle[Figure 5]. In addition, a MRI showed a large lobulated soft tissue swelling involving the left cheek, extending inferiorly to involve the upper lip from left side and soft tissues of chin.

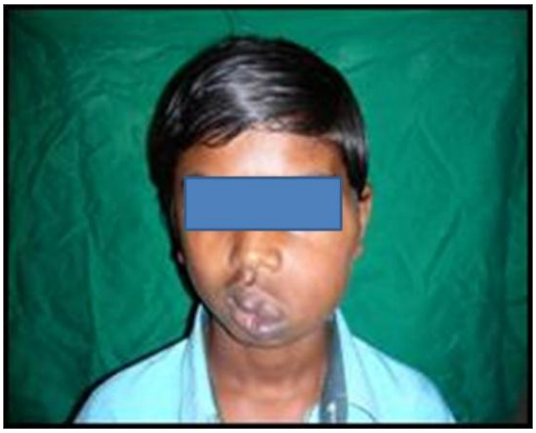

Figure 1: Extra oral view showing swellingof left cheek

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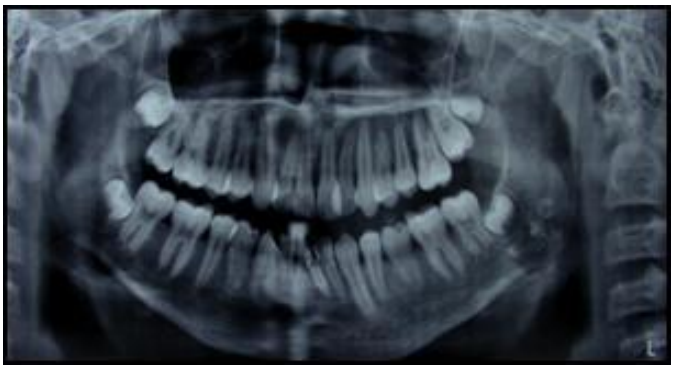

Figure 3: Orthopantomograph showing small rounded or sausage shaped radiopacities

Figure 2: Intraoral examination shows bluish red swelling of left buccal mucosa

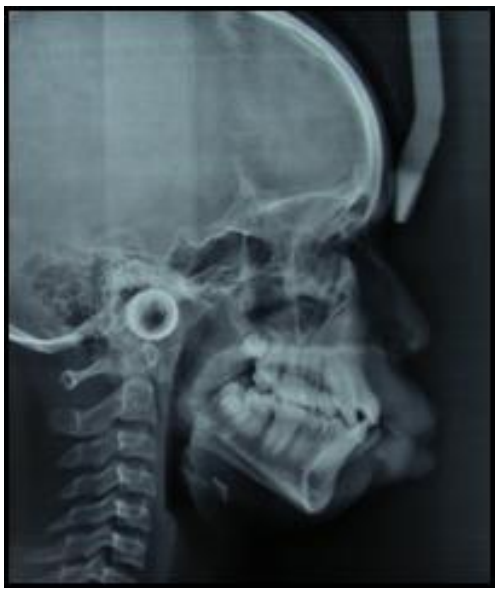

Figure 4: Lateral cephalogram showing calcifications of lower lip

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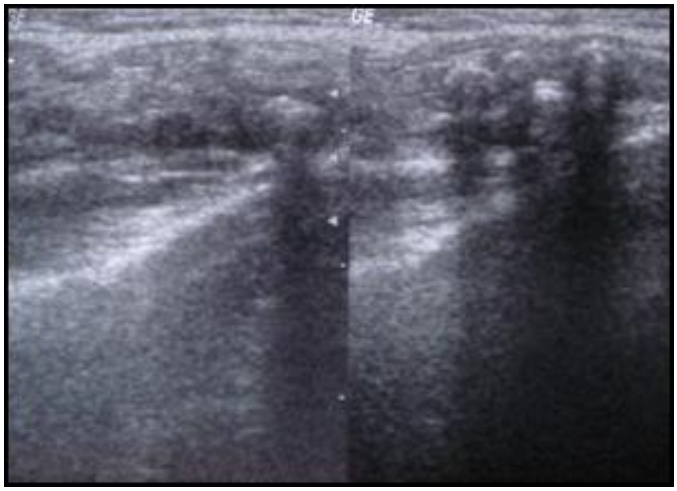

Figure 5: Ultrasonography showing phleboliths involving the masseter muscle

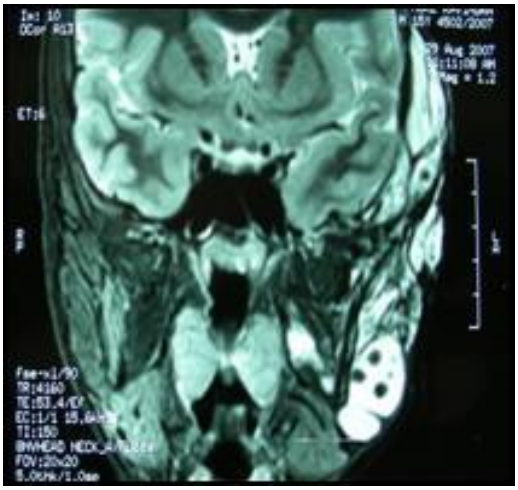

Figure 7: MRI showing multiple calcified hypointense areas suggestive of phleboliths

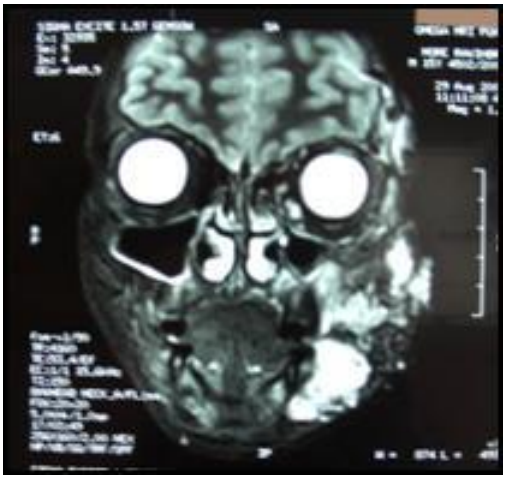

Figure 6: MRI showing a lobulated soft tissue swelling involving left cheek, masseter muscle

Superiorly, the swelling extends into the suprazygomatic portion of masticator space. Posteriorly, it extends upto the angle of mandible and has involved the left masseter muscle, which looks markedly enlarged. Medially it extends into the infrazygomatic portion of masticator space. Left supra and para orbital soft tissues also look involved. The mass also has a heterogenous signal pattern on T1 and T 2 W images, predominantly hypointense on T1 and markedly hyperintense on T2 images. Posteriorly, it has compressed the superficial lobe of left parotid gland. The retromandibular vein in the left parotid gland substance appears markedly enlarged (Figure 6). Multiple hypointensities within the involved left masseter muscle are due to phlebolith (Figure 7). There was no intracranial extension of the mass. Based on clinic- radiological findings a diagnosis of hemangioma of cheek was made.

DISCUSSION

Oral hemangioma represents 14% of all human hemangiomas.30 % of hemangiomas are present at birth. The other 70% of them appear in the first few weeks of life. Hemangiomas are approximately 3-5 times more common in females than in males. Oral hemangiomas most commonly involve tongue, buccal mucosa, lips and palate [4].Our patient was a 14 year old boy in which buccal mucosa, upper and lower lip was involved. The earliest sign of hemangioma is blanching of the involved skin, often followed by fine telangiectases and a red macule. Rapid growth during the neonatal period is the hallmark of hemangiomas, occurring characteristically beyond the growth rate of the infant. Fifty per cent of hemangiomas complete involution by age 5, 70% by age 7, and 90% by age 9[5].Our case is a rare one in which the hemangioma did not involute. The first clinical sign of involution within a superficial hemangioma is a color change from bright red to dull red to gray, which begins centrally as the tumor softens and flattens. Deep lesions become less blue and warm[5]. During involution, the hemangioma shrinks centrifugally from the centre of the lesion[6] but in our case the hemangioma did not involute which in comparison is different from usual progression of this entity.

In 1982, Mulliken and Glowacki [7]described the classification scheme that is most accepted today. They classified vasculars tumors into two broad groups:hemangiomas and vascular malformations Hemangiomas can be classified into capillary, cavernous and mixed hemangiomas. Capillary hemangiomas are usually not present at birth but are antedated by a pale, well-demarcated, flat area, most visible with agitation.Cavernous hemangiomas are composed of large, irregular, deep dermal and subcutaneous blood-filled channels that impart a purplish discoloration to the overlying skin. They are typically soft, poorly defined, and readily blanch with compression, giving them a characteristic "bag of worms" feel. Our's was a case of cavernous hemangioma. Radiographically, in case of central hemangioma soap bubble, honey comb, sun ray or a spokes wheel appearance is seen. It assumes a rounded shape along with a fusiform enlargement of bone. Phleboliths are seen in case of intramuscular hemangioma as seen in our case but are rare in case of central hemangioma[8].

Different treatment modalities are recommended each having its own advantages and disadvantages [6]. The modalities available are surgical excision, antimetabolites, steroids, injection of sclerosing agents, cryotherapy, laser therapy, radiation treatment.

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